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| 10/812,664 | 03/30/2004 | Yong Qiang Wang | 3993968-150413-1 | 3560 |
| 750 Porter, Wright, Morris & Arthur LLP 41 South High Street Columbus, OH 43215 | | | EXAMINER PILKINGTON, JAMES | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,664

Applicant(s)

WANG, YONG QIANG

Examiner

JAMES PILKINGTON

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Prosecution Application

The request filed on 4/23/08 for Continued Examination (RCE) is accepted and a RCE has been established. An action on the RCE follows.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn, USP 5,775,166 (see Figure 12), in view of Osborn, USP 5,277,077.

Re clm 1, Osborn '166 discloses a shifter mechanism comprising, in combination:

- A shifter lever (12) movable along a shift path
- a detent profile (on plate 19) defining a plurality of gear positions (Figure 11)
- A pawl (56) movable between a locking position wherein the pawl engages the detent profile to lock the shifter lever in one of the plurality of gear positions against movement and an unlocking position wherein the shifter lever is movable along the shift path between the plurality of gear positions
- An actuator (50) operatively coupled to the pawl (56) to selectively move the pawl (56) from the locking to the unlocking position

- A secondary detent profile (70) defining a plurality of gear positions
- Wherein each of the detent profiles (19 and 70) are secured to the shift lever (12) to move with the shift lever (12) (70 is directly attached to the lever and 19 is secured via rod 30b/31a/31b)
- An engagement head (73) contacting the secondary detent profile (70)
- A spring member (71) resiliently maintaining the engagement head (73) in contact with the secondary detent profile (70)

Osborn '166 does not disclose that the pawl includes a roller that engages the detent profile.

Osborn '077 teaches a pawl (42) that includes a roller (43) that engages the detent profile for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort (C2/L30-35).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Osborn '166 and provide a pawl that includes a roller that engages the detent profile, as taught by Osborn '077, for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort.

Re clm 2, Osborn '166 discloses that the detent profile includes a plurality of grooves (surface of 21).

Re clm 3, the actuator (50) is a linear actuator having a pin (40/45 is a pin) extendable along a linear path.

Re clm 4, the actuator (50) is a solenoid

Re clm 5, the pin (40/45) is in an extended position when said actuator (50) is energized and a retracted position when said actuator is unenergized (C4/L26-48).

Re clm 6, the pin is in an extended position when the pawl (56) is in the unlocked position and a retracted position when the pawl (56) is in the locking position (the pin/pawl moves into the groove to lock and out of the groove to unlock).

Re clm 7, Osborn '166 in view of Osborn '077 discloses the roller (Osborn '007 43) is rotatably secured to a detent lever (Osborn '166 pin/pawl 56 is a lever) and the detent lever is pivotable to move the pawl between the locking position and the unlocking position.

Re clms 8 and 9, Osborn '166 in view Osborn '077 discloses that the pawl (Osborn '077 42) moves along an arcuate path between the locking position and the unlocking position {clms 8 and 9} and the actuator (Osborn '166 50) is a linear actuator which is operatively connected to the detent lever to pivot the detent lever along the arcuate path {clm 8}.

NOTE: a pivot as defined by Webster's II New Riverside Dictionary as something on which the direction, development or effect on something else depends.

3. Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn '166, in view of Kataumi, USP 5,445,046.

Re clm 10, Osborn '166 discloses a shifter mechanism comprising, in combination:

- A shifter lever (12) movable along a shift path
- a detent profile (on detent plate 19) defining a plurality of gear positions
- A pawl (56) movable between a locking position wherein the pawl engages the detent profile to lock the shifter lever in one of the plurality of gear positions against movement along the shift path and an unlocking position wherein the shifter lever is movable along the shift path between the plurality of gear positions
- A pivotable detent lever (linkage connected to pawl 56) carrying the pawl
- A linear actuator (50) operatively coupled to the pawl (56) to selectively move the pawl (56)
- A secondary detent profile (70) defining a plurality of gear positions
- Wherein each of the detent profiles (19 and 70) are secured to the shift lever (12) to move with the shift lever (12) (70 is directly attached to the lever and 19 is secured via rod 30b/31a/31b)
- An engagement head (73) contacting the secondary detent profile (70)
- A spring member (71) resiliently maintaining the engagement head (73) in contact with the secondary detent profile (70)

Osborn '166 does not disclose that the pawl moves in an arcuate path.

Kataumi teaches a pawl (30) that is moved by an actuator (spring) in an arcuate path for the purpose of engaging a plurality of detent teeth in a releaseable manner (C1/L36-54).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Osborn '166 and provide a pawl (30) that is moved by an actuator in an arcuate path, as taught by Kataumi, for the purpose of engaging a plurality of detent teeth in a releaseable manner.

Re clm 11, Osborn '166 discloses that the detent profile includes a plurality of grooves (surface of 21).

Re clm 12, the actuator (50) is a linear actuator having a pin (40/45) extendable along a linear path.

Re clm 13, the linear actuator (50) is a solenoid.

Re clm 14, the pin (40/45) is in an extended position when said actuator (50) is energized and a retracted position when said actuator is unenergized (C4/L26-48).

Re clm 15, the pin is in an extended position when the pawl (56) is in the unlocked position and a retracted position when the pawl (56) is in the locking position.

4. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn '166, in view of Kataumi '046 and further in view of Osborn '077.

Re clm 16, Osborn '166 in view of Kataumi discloses all of the claimed subject matter above.

Osborn '166 in view of Kataumi does not disclose that the pawl includes a roller that engages the detent profile.

Osborn '077 teaches a pawl (42) that includes a roller (43) that engages the detent profile for the purpose of providing a shift lever handle assembly having a limited

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number of parts and constructed of parts that can be actuated more smoothly and with less effort (C2/L30-35).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Osborn '166 in view of Kataumi and provide a pawl that includes a roller that engages the detent profile, as taught by Osborn '077, for the purpose of providing a shift lever handle assembly having a limited number of parts and constructed of parts that can be actuated more smoothly and with less effort.

Re clm 17, Osborn '077 discloses that the roller (43) is rotatably secured to the detent lever (40).

Allowable Subject Matter

5. Claims 18-20 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claim 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.P./

Examiner, Art Unit 3682

5/1/08

/Richard WL Ridley/

Supervisory Patent Examiner, Art Unit 3682